

Section 10. Radar Approaches- Terminal

5-10-1. APPLICATION

a. Provide radar approaches in accordance with standard or special instrument approach procedures.

b. A radar approach may be given to any aircraft upon request and may be offered to aircraft in distress regardless of weather conditions or to expedite traffic.

NOTE-

Acceptance of a radar approach by a pilot does not waive the prescribed weather minima for the airport or for the particular aircraft operator concerned. The pilot is responsible for determining if the approach and landing are authorized under the existing weather minima.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-2. APPROACH INFORMATION

a. Issue the following information to an aircraft that will conduct a radar approach. Current approach information contained in the ATIS broadcast may be omitted if the pilot states the appropriate ATIS broadcast code. All items listed below, except for subpara 3 may be omitted after the first approach if repeated approaches are made and no change has occurred. Transmissions with aircraft in this phase of the approach should occur approximately every minute.

REFERENCE-

FAAO 7110.65, *Approach Information*, Para 4-7-10.

1. Altimeter setting.

2. If available, ceiling and visibility if the ceiling at the airport of intended landing is reported below 1,000 feet or below the highest circling minimum, whichever is greater, or if the visibility is less than 3 miles. Advise pilots when weather information is available via the Automated Weather Observing System (AWOS)/Automated Surface Observing System (ASOS) and, if requested, issue the appropriate frequency.

NOTE-

Automated weather observing systems may be set to provide one minute updates. This one minute data may be useful to the pilot for possible weather trends. Controllers provide service based solely on official weather, i.e., hourly and special observations.

3. Issue any known changes classified as special weather observations as soon as possible. Special weather observations need not be issued after they are included in the ATIS broadcast and the pilot states the appropriate ATIS broadcast code.

4. Pertinent information on known airport conditions if they are considered necessary to the safe operation of the aircraft concerned.

5. Lost communication procedures as specified in para 5-10-4, Lost Communications.

b. Before starting final approach:

NOTE-

1. *ASR approach procedures may be prescribed for specific runways, for an airport/heliport, and for helicopters only to a "point-in-space," i.e., a MAP from which a helicopter must be able to proceed to the landing area by visual reference to a prescribed surface route.*

2. *Occasionally, helicopter PAR approaches are available to runways where conventional PAR approaches have been established. In those instances where the two PAR approaches serve the same runway, the helicopter approach will have a steeper glide slope and a lower decision height. By the controller's designating the approach to be flown, the helicopter pilot understands which of the two approaches he/she has been vectored for and which set of minima apply.*

1. Inform the aircraft of the type of approach, runway, airport, heliport, or other point, as appropriate, to which the approach will be made. Specify the airport name when the approach is to a secondary airport.

PHRASEOLOGY-

THIS WILL BE A P-A-R/SURVEILLANCE APPROACH TO:

RUNWAY (runway number),

or

(airport name) AIRPORT, RUNWAY (runway number),

or

(airport name) AIRPORT/HELIPORT.

THIS WILL BE A COPTER P-A-R APPROACH TO:

RUNWAY (runway number),

or

(airport name) AIRPORT, RUNWAY (runway number),

or

(airport name) AIRPORT/HELIPORT.

2. For surveillance approaches, specify the location of the MAP in relation to the runway/airport/heliport.

PHRASEOLOGY-

MISSED APPROACH POINT IS (distance) MILE(S) FROM RUNWAY/AIRPORT/HELIPORT,

or for a point-in-space approach,

A MISSED APPROACH POINT (distance) MILE(S) (direction from landing area) OF (airport name) AIRPORT/HELIPORT.

EXAMPLE-

Helicopter point-in-space approach:

"Army copter Zulu Two, this will be a surveillance approach to a missed approach point, three point five miles south of Creedon Heliport."

REFERENCE-

FAAO 7110.65, Elevation Failure, Para 5-12-9.

c. Inform an aircraft making an approach to an airport not served by a tower that no traffic or landing runway information is available for that airport.

PHRASEOLOGY-

NO TRAFFIC OR LANDING RUNWAY INFORMATION AVAILABLE FOR THE AIRPORT.

REFERENCE-

FAAO 7110.65, Altimeter Setting Issuance Below Lowest Usable FL, Para 2-7-2.

FAAO 7110.65, Final Approach Course Interception, Para 5-9-2.

5-10-3. NO-GYRO APPROACH

When an aircraft will make a no-gyro surveillance or a PAR approach:

a. Before issuing a vector, inform the aircraft of the type of approach.

PHRASEOLOGY-

THIS WILL BE A NO-GYRO SURVEILLANCE/P-A-R APPROACH.

b. Instruct the aircraft when to start and stop turn.

PHRASEOLOGY-
TURN LEFT/RIGHT.
STOP TURN.

c. After turn on to final approach has been made and prior to the aircraft reaching the approach gate, instruct the aircraft to make half-standard rate turns.

PHRASEOLOGY-

MAKE HALF-STANDARD RATE TURNS.

REFERENCE-

FAAO 7110.65, Final Approach Course Interception, Para 5-9-2.

FAAO 7110.65, Elevation Failure, Para 5-12-9.

5-10-4. LOST COMMUNICATIONS

When weather reports indicate that an aircraft will likely encounter IFR weather conditions during the approach, take the following action as soon as possible after establishing radar identification and radio communications (may be omitted after the first approach when successive approaches are made and the instructions remain the same):

NOTE-

Air traffic control facilities at U.S. Army and U.S. Air Force installations are not required to transmit lost communications instructions to military aircraft. All military facilities will issue specific lost communications instructions to civil aircraft when required.

a. If lost communications instructions will require the aircraft to fly on an unpublished route, issue an appropriate altitude to the pilot. If the lost communications instructions are the same for both pattern and final, the pattern/vector controller shall issue both. Advise the pilot that if radio communications are lost for a specified time interval (not more than 1 minute) on vector to final approach, 15 seconds on a surveillance final approach, or 5 seconds on a PAR final approach to:

1. Attempt contact on a secondary or a tower frequency.

2. Proceed in accordance with visual flight rules if possible.

3. Proceed with an approved nonradar approach, or execute the specific lost communications procedure for the radar approach being used.

NOTE-

The approved procedures are those published on the FAA Forms 8260 or applicable military document.

PHRASEOLOGY-

IF NO TRANSMISSIONS ARE RECEIVED FOR (time interval) IN THE PATTERN OR FIVE/FIFTEEN SECONDS ON FINAL APPROACH, ATTEMPT CONTACT ON (frequency), AND

if the possibility exists,

PROCEED VFR. IF UNABLE:

if approved,

PROCEED WITH (nonradar approach), MAINTAIN (altitude) UNTIL ESTABLISHED ON/OVER/FIX/NAVAID/ APPROACH PROCEDURE,

or

(alternative instructions).

PHRASEOLOGY-

USN. For ACLS operations using Mode I, IA, and II,

IF NO TRANSMISSIONS ARE RECEIVED FOR FIVE SECONDS AFTER LOSS OF DATA LINK, ATTEMPT CONTACT ON (frequency), AND

if the possibility exists,

PROCEED VFR. IF UNABLE:

if approved,

PROCEED WITH (nonradar approach), MAINTAIN (altitude) UNTIL ESTABLISHED ON/OVER/FIX/NAVAID/ APPROACH PROCEDURE,

or

(alternative instructions).

b. If the final approach lost communications instructions are changed, differ from those for the pattern, or are not issued by the pattern controller, they shall be issued by the final controller.

c. If the pilot states that he/she cannot accept a lost communications procedure due to weather conditions or other reasons, request the pilot's intention.

NOTE-

The pilot is responsible for determining the adequacy of lost communications procedures with respect to aircraft performance, equipment capability, or reported weather.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Approach Information*, Para 5-10-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-5. RADAR CONTACT LOST

If radar contact is lost during an approach and the aircraft has not started final approach, clear the aircraft to an appropriate NAVAID/fix for an instrument approach.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Final Approach Abnormalities*, Para 5-10-14.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-6. LANDING CHECK

USA/USN. Advise the pilot to perform landing check while the aircraft is on downwind leg and in time to complete it before turning base leg. If an incomplete pattern is used, issue this before handoff to the final controller for a PAR approach, or before starting descent on final approach for surveillance approach.

PHRASEOLOGY-

PERFORM LANDING CHECK.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-7. POSITION INFORMATION

Inform the aircraft of its position at least once before starting final approach.

PHRASEOLOGY-

(Number) MILES (direction) OF (airport name) AIRPORT,

or

(number) MILES (direction) OF (airport name) AIRPORT ON DOWNWIND/BASE LEG.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-8. FINAL CONTROLLER CHANGEOVER

When instructing the aircraft to change frequency for final approach guidance, include the name of the facility.

PHRASEOLOGY-

CONTACT (name of facility) FINAL CONTROLLER ON (frequency).

REFERENCE-

FAAO 7110.65, *Radio Communications Transfer*, Para 2-1-17.
FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Arrival Instructions*, Para 5-9-4.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-9. COMMUNICATIONS CHECK

On initial contact with the final controller, ask the aircraft for a communication check.

PHRASEOLOGY-

(Aircraft call sign), (name of facility) FINAL CONTROLLER. HOW DO YOU HEAR ME?

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-10. TRANSMISSION ACKNOWLEDGMENT

After contact has been established with the final controller and while on the final approach course, instruct the aircraft not to acknowledge further transmissions.

PHRASEOLOGY-

DO NOT ACKNOWLEDGE FURTHER TRANSMISSIONS.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-11. MISSED APPROACH

Before an aircraft starts final descent for a full stop landing and weather reports indicate that any portion of the final approach will be conducted in IFR conditions, issue a specific missed approach procedure approved for the radar approach being conducted.

PHRASEOLOGY-

YOUR MISSED APPROACH PROCEDURE IS (missed approach procedure).

NOTE-

1. The specific missed approach procedure is published on FAA Form 8260-4 or applicable military document.

2. USAF. At locations where missed approach instructions are published in base flying regulations, controllers need not issue missed approach instructions to locally assigned/attached aircraft.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-12. LOW APPROACH AND TOUCH-AND-GO

Before an aircraft which plans to execute a low approach or touch-and-go begins final descent, issue appropriate departure instructions to be followed upon completion of the approach. Climb-out instructions must include a specific heading and altitude except when the aircraft will maintain VFR and contact the tower.

PHRASEOLOGY-

AFTER COMPLETING LOW APPROACH/TOUCH AND GO:

CLIMB AND MAINTAIN (altitude).

TURN (right or left) HEADING (degrees)/FLY RUNWAY HEADING,

OR

MAINTAIN VFR, CONTACT TOWER,

OR

(other instructions as appropriate).

NOTE-

This may be omitted after the first approach if instructions remain the same.

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-13. TOWER CLEARANCE

a. When an aircraft is on final approach to an airport served by a tower, obtain a clearance to land, touch-and-go, or make low approach. Issue the clearance and the surface wind to the aircraft.

b. If the clearance is not obtained or is canceled, inform the aircraft and issue alternative instructions.

PHRASEOLOGY-

TOWER CLEARANCE CANCELED/NOT RECEIVED (alternative instructions).

REFERENCE-

FAAO 7110.65, *Final Approach Course Interception*, Para 5-9-2.
FAAO 7110.65, *Elevation Failure*, Para 5-12-9.

5-10-14. FINAL APPROACH ABNORMALITIES

Instruct the aircraft if runway environment not in sight, execute a missed approach if previously given; or climb to or maintain a specified altitude and fly a specified course whenever the completion of a safe approach is questionable because one or more of the following conditions exists. The conditions in subparas a, b, and c do not apply after the aircraft passes decision height on a PAR approach.

EXAMPLE-

Typical reasons for issuing missed approach instructions:

"Radar contact lost."

"Too high/low for safe approach."

"Too far right/left for safe approach."

REFERENCE-

FAAO 7110.65, *Position Advisories*, Para 5-12-7.

a. Safety limits are exceeded or radical target deviations are observed.

b. Position or identification of the aircraft is in doubt.

c. Radar contact is lost or a malfunctioning radar is suspected.

PHRASEOLOGY-

(Reason) IF RUNWAY/APPROACH LIGHTS/RUNWAY LIGHTS NOT IN SIGHT, EXECUTE MISSED APPROACH/(alternative instructions).

NOTE-

If the pilot requests, approval may be granted to proceed with the approach via ILS or another navigational aid/approach aid.

REFERENCE-

FAAO 7110.65, Radar Contact Lost, Para 5-10-5.

d. Airport conditions or traffic preclude approach completion.

PHRASEOLOGY-

EXECUTE MISSED APPROACH/(alternative instructions), (reason).

REFERENCE-

*FAAO 7110.65, Final Approach Course Interception, Para 5-9-2.
FAAO 7110.65, Elevation Failure, Para 5-12-9.*

5-10-15. MILITARY SINGLE FREQUENCY APPROACHES

a. Utilize single frequency approach procedures as contained in a letter of agreement.

b. Do not require a frequency change from aircraft on a single frequency approach after the approach has begun unless:

1. Landing or low approach has been completed.

2. The aircraft is in visual flight rules (VFR) conditions during daylight hours.

3. The pilot requests the frequency change.

4. An emergency situation exists.

5. The aircraft is cleared for a visual approach.

6. The pilot cancels instrument flight rules (IFR).

c. Accomplish the following steps to complete communications transfer on single frequency approaches after completion of a handoff:

1. Transferring controller: Position transmitter selectors to preclude further transmissions on the special use frequencies.

2. Receiving controller: Position transmitter and receiver selectors to enable communications on the special use frequencies.

3. Do not require or expect the flight to check on frequency unless an actual frequency change is transmitted to the pilot.